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SUBJECT: Interim Report: Department of Defense Psychotropic Medication Prescription Practices and Use and Complementary and Alternative Medicine Use 2011-05

**Background:**

On August 17, 2010, the Defense Health Board (DHB) received a request from Charles L. Rice, M.D., President, Uniformed Services University of the Health Sciences, Performing the Duties of the Assistant Secretary of Defense, Health Affairs, to review issues and provide guidance surrounding the prescribing and use of psychotropic medications by military personnel. Dr. Rice also requested that the DHB review the use of complementary and alternative medicine (CAM) by Service members. The DHB Co-Vice Presidents established the Psychotropic Medication Work Group and the CAM Work Group, including a number of Board and Psychological Health External Advisory Subcommittee members. These work groups were later combined to address both issues jointly. Eventually, the combined groups met together at meetings of the Psychological Health Subcommittee of the Board.

**Work Group Focus Areas:**

With subsequent examination of the assigned task, the work group identified the following key areas for review:

- Psychotropic and CAM use in theater, in other deployed and operational settings, and by Service members engaged in peacekeeping missions, preparing to deploy, or between deployments
- Most common in-theater psychological health conditions and associated optimal evidence-based therapies that would also be viably deliverable in theater
- Clinically appropriate deployment-related clinical practice guidelines (CPGs)
- Provider scope of practice: who is providing care and in what context?
- In-theater treatment processes and protocols used by primary care physicians and psychiatrists who prescribe medication
- In-theater availability of medical records for providers, particularly for Army Reserve and National Guard members who may deploy while on psychotropic medication and who may not have received adequate pre-deployment screening
- Existing framework for knowledge dissemination and awareness of deployment-limiting conditions related to most common in-theater psychological conditions
- Percentage of Service members deemed non-deployable due to psychological health conditions, stigma associated with care-seeking, or challenges related to rejoining their units

**Work Group Activities:**

In addition to electronic communications, the work group met on five occasions with the first meeting on September 10, 2010 and the last meeting on May 9, 2011. The members received briefings and data from numerous sources within and external to DoD, including the Armed Forces Health Surveillance Center; Service subject matter experts; Walter Reed Army Institute of Research; Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury; National Intrepid Center of Excellence; Office of the Assistant Secretary of Defense for Health Affairs; Force Health Protection and Readiness; DoD Pharmacoeconomic Center (PEC); the Combat and Operational Stress Control Training Branch of the Department of Behavioral Health Sciences, Army Medical Department Center and School; University of Maryland Shock Trauma Center; National Center for Complementary and Alternative Medicine at the National Institutes of Health; and the District of Columbia Department of Mental Health.

**Preliminary Findings and Recommendations:**

The psychological and behavioral effects of multiple deployments on Service members, and the mental health impact of serving in the combat settings of Afghanistan and Iraq are ongoing, escalating, and urgent national concerns. Exposure to deployment-related stressors has been linked to elevated rates of post-traumatic stress disorder (PTSD), anxiety, depression, sleep, and substance abuse disorders. Concerns have been raised about the safety and effectiveness of prescription medication practices for these disorders; (“on-” and “off-label”) side effects; misuse; polypharmacy (multiple medications taken simultaneously including CAM products); and potential risks and impairments to combat-readiness.

Specific questions have been raised regarding: 1) trends in psychotropic prescription drug use among Service members; 2) evidence-based practice guidelines for treatment of psychological health conditions; 3) the availability and accessibility of properly trained mental health personnel in operational settings; and 4) the effectiveness and availability of CAM treatments for Service members. Findings and preliminary recommendations are grouped according to the following topics: prevalence of the most common in-theater psychological health conditions; prevalence of psychotropic prescription drug use; CAM use; CPGs; and provider training.

**Prevalence of Psychological Health Conditions**

**Findings**

1. Due to the unprecedented exposure to stressors resulting from multiple conflicts that span over a decade, Service members and their families are experiencing psychological and behavioral health challenges as a predictable consequence of prolonged and repeated deployments.
2. Despite these exposures, the majority of military members and their families do not appear to have experienced immediate, adverse psychological effects requiring medical and mental health care.

3. The precise prevalence and treatment of psychological health problems among Service members, particularly in theater, is difficult to estimate due to inadequate data collection. Even for clinical interactions coded as mental health visits, there are insufficient and insufficiently comprehensive data describing the treatments or medications prescribed (for example, individual counseling, psychotherapy/cognitive behavioral therapy, group sessions, medications, and alternative medicine modalities).
4. Efforts are underway across DoD to improve psychological health screening and to foster psychological health and resiliency as assets that need to be developed and sustained. It should be noted that troops are trained for combat, and therefore combat itself is not necessarily an undue stressor.
5. Since 2009, psychological health staffing has doubled and troops have reported better access to care. Nonetheless, improvements can be made in both initial military training and continuing operationally relevant professional development.
6. The importance of sleep problems is reflected in pharmacy data that sleep medications (for example, Ambien<sup>®</sup>) are the predominant prescription psychotropic drug used in theater. Because insomnia (difficulty falling asleep, sustaining sleep, or inability to restore sleep) is associated with and can lead to comorbid psychological health conditions, it also must be viewed as an operational issue, with line commanders cognizant of the need for sleep hygiene discipline and, as indicated, access to sleep and restoration interventions. The Army Field Manual for Combat Operational Stress Control appropriately focuses on sleep hygiene.
7. Pain is among the most common problems reported by Service members, a finding that is also true for health care settings in the civilian sector. Moreover, pain increases the risk of psychological conditions such as PTSD and depression and can make such conditions more difficult to treat. The prevalence of pain is a major reason for the prescribing of opioid medications. Opioids, which are not in and of themselves psychotropic medications, can be useful for the short-term treatment of acute pain. However, they should be used cautiously in the treatment of chronic pain where there are safer and potentially more effective alternatives. Finally, any increased use of opioids among Service members must be viewed in context of the 7-fold increase in use of opioid medications in the U.S. population over the past decade.

### **Preliminary Recommendations**

1. DoD should conduct a comprehensive and systematic review of the prevalence and functional elements of an integrated line and medical model (prevention, self-, “buddy-”, and unit-care, field/echelon clinical care delivery) for preventing, detecting, and treating known and predictable psychological conditions in theater. The model should be informed by the 5 to 10 years of data on psychological health accumulating from the two conflicts. The Traumatic Events Anxiety Management and Screening (TEAMS) in Deployed Settings “integrated line-medical field and clinical practice guideline” represents important initial progress in this regard.

2. Psychological first aid for predictable combat stress may be best provided at the self- and “buddy-care” level with enhanced line and leadership training. Peer-to-peer training prior to deployment should augment personal resiliency training as critical preventive and acute treatment measures in collaboration and integration with line initiatives currently underway.
3. DoD should standardize and deploy uniform coding practices for the diagnosis and treatment of psychological health disorders with particular emphasis on in-theater practical deployment, surveillance, and quality improvement purposes.
4. DoD should incorporate point-of-care guidelines, decision-support tools, and guidance that can be integrated into the medical and mental health care workflow. Embedded decision support in health information technology (for example, the Armed Forces Health Longitudinal Technology Application [AHLTA]) will improve the provision of best practices and evidence-based care. Training remains essential, particularly for providers in theater who may not have ready access to automated decision support tools.
5. Analogous to the Task Force on Pain, DoD should establish a Task Force on Sleep to identify emerging scientific findings and define best operational and medical practices to optimize performance and readiness.

### **Prevalence of Psychotropic Prescription Drug Use**

#### **Findings**

8. DoD currently lacks a unified pharmacy database that reflects medication use across predeployment, deployment, and post-deployment settings. Military Health System (MHS) data systems—at the individual, clinical, and population levels—are inadequate to understand and detect important clinical and pharmacy data in a timely fashion. The AHLTA system, as currently functioning, is not sufficiently linked with pharmacy information. The MHS PEC has identified these areas as limiting and is working to identify a data structure for improved in-theater data collection.
9. There has been a trend towards increased use of psychotropic drugs in theater over the past three years.
10. Even given the increased trend, there does not appear to be an inappropriate increase in the use of psychotropic medication given the likely increase in rates of psychological stress. It is likely that the increased use both in theater and in garrison reflects appropriate professional judgment and prescribing.
11. Service members can receive medications through multiple routes with varying degrees of documentation. For example, there is inadequate tracking of prescription drugs dispensed at lower echelons of care at forward-deployed locations in theater. Members can also bring medications to theater or receive them through undocumented shipments originating outside the theater.

12. The use of multiple psychotropic medications may be appropriate in select individuals. If evidence-based and appropriately administered, polypharmacy (meaning in this document the use of multiple medications, either appropriately or not) can constitute a balanced approach to optimize functioning. Close monitoring of multiple drugs of any and all types is necessary to both optimize treatment and minimize side effects. However, individual clinical- and population-level MHS data systems do not comprehensively detect polypharmacy, adverse drug-drug interactions, or potential for abuse, particularly in theater. In contrast, surveillance protocols in the civilian sector are used to detect multiple, inappropriate prescribing patterns or protect against drug-drug adverse interactions.
13. Some off-label use of psychotropic medications is appropriate based on available information and evidence. However, DoD lacks a consistent policy or approach for the off-label use of drugs.
14. Although there does not appear to be an inappropriate increase in the use of psychotropic drugs, there may be an underuse of alternative treatment strategies, particularly in theater.
15. There is lack of uniform access to medications in theater, across the Services and across deployed locations. In some cases, unless providers proactively request medications, they may not be readily available at their deployed locations.

### **Preliminary Recommendations**

6. Healthy lifestyles, including proper nutrition, physical activity/exercise, tobacco cessation, avoidance of excessive alcohol use, and effective coping strategies for undue stress should be the foundation of DoD efforts to support resilient responses to operational stressors and psychological health in general. Particular emphasis should be placed on proper sleep hygiene.
7. DoD should review and modify existing policies and practices for capturing, tracking, and monitoring prescription drug data as well as all sources of untracked drugs. In particular:
  - a. prescription drug databases for in-theater operations should better monitor polypharmacy, drug-drug interactions, drug dependence and drug-seeking behaviors;
  - b. polypharmacy should be tracked, assessed, and controlled (when appropriate) through more interoperable and complete data tracking systems; and
  - c. integrated information technology and electronic medical record (EMR) systems (for example, AHLTA) should include embedded decision support and prompts related to psychotropic drug prescribing practices.
8. DoD should review its current guidance regarding the off-label use of certain medications (for example, Seroquel<sup>®</sup>).
9. DoD should assure that its definition of polypharmacy is consistent with its general use in civilian practice.

## **Complementary and Alternative Medicine**

### **Findings**

16. There is growing evidence of the effectiveness of some CAM modalities, in particular acupuncture, mindfulness, and selected few oral agents for treating pain and psychological conditions such as depression. These interventions may be a practical alternative treatment choice or an adjunct to prescription medications.
17. CAM modalities are not a covered benefit under TRICARE despite some being available in varying degrees at multiple military treatment facilities.

### **Preliminary Recommendations**

10. DoD should conduct and support military-relevant studies to measure the effectiveness of CAM approaches for the management of common psychological symptoms versus psychotropic medications for conditions with high prevalence and/or operational concerns.
11. Just as it encourages public health and psychological consultants, though called by different names across the Services, DoD should encourage the Services to create CAM-consultancies.
12. As an example of covered benefits reflecting current evidence-based practice, DoD should ensure that any CAM treatments that are recommended in the CPG are part of the TRICARE benefit and that uniformed providers are trained in these techniques.

## **Clinical Practice Guidelines**

### **Findings**

18. DoD has initiated some promising integrated line and medical protocols for identifying and rapidly addressing psychological health issues in-theater (e.g., TEAMS).
19. The 2010 Department of Veterans Affairs (VA)/DoD Clinical Practice Guideline for Management of Post-Traumatic Stress is a significant contribution to improving acute psychological health services for Service members. The guideline describes the critical decision points in case management and provides clear and comprehensive evidence-based recommendations incorporating current information and practices for practitioners to appropriately administer psychotropic medications, psychotherapy, and CAM throughout DoD and VA health care systems. However, a systematic means to evaluate and readjust the guideline's practicability and usefulness in theater does not appear to be in place.
20. It is uncertain how well disseminated and implemented current CPGs are; how the CPGs are generated and updated systematically, including their alignment with line policy and programs; or how they create a uniform approach to identifying and managing common operational stress reactions in the deployed setting.

21. Provider training alone is insufficient for ensuring that CPGs are deployed and utilized appropriately. Policy, line and in-field systems and support are required to insure optimization of care, effective treatment, and returning troops to operational effectiveness.

### **Preliminary Recommendations**

16. Better integration of line and medical approaches to the identification and treatment of combat stress disorders with uniform guidance and implementation is necessary across the Services.
17. In-context descriptions of appropriate clinical pathways for common psychological health issues should be made available at the point of care, for example, in the current or developing electronic medical record system.
18. DoD should prioritize its research and practice guidelines so that they are evidence-informed regarding psychological health practices as they are actually conducted in applied field operations and garrison care. This should include the systematic application of quality improvement techniques. The Department should also develop a framework for gathering data about effectiveness and utility of all interventions, rapid dissemination of these data, and rapid turnaround in the application of those data to care. A useful, though not perfectly analogous, model for this is Tactical Combat Casualty Care.

### **Training**

#### **Findings**

22. In recent years, DoD has increased the number and quality of trained psychological and behavioral health personnel and training for primary care providers and members of the chaplain corps in psychological health. However, available education and training opportunities are not standardized, either across Services or across disciplines.

### **Preliminary Recommendations**

19. Basic training courses for all providers should include integrated protocols for managing combat stress reactions and related co-morbidities, including content on line leadership and unit practices, self-care, psychotropic medications, psychotherapy, and effective CAM modalities.
20. Professional competencies must be consistently maintained and updated to reflect best evidence, and continued professional supervision should be available. Specific training with defined, specialty-specific (for example, unit medic, medical technician, primary care provider, psychologist, psychiatrist, social worker, clinical case manager) scope of practice for the treatment of psychological conditions in theater should be developed, deployed and updated based on new evidence derived from civilian and military focused operational studies. DoD should optimize the use of existing educational tools, teletechnologies, and

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mobile applications for training all levels of care providers for PTSD and other psychological conditions.

21. DoD should develop web-based self-management tools and strategies to educate and guide Service members and families on evidence-based treatment alternatives for chronic problems, such as sleep and pain.

**The Way Ahead:**

Final Report preparation: The original date that responses were expected was March 31, 2011. The Work Groups and Subcommittee do not anticipate any major changes to this interim report findings or recommendations in advance of the presentation at the June 2011 DHB meeting. Requested data have been received and the final report is currently being edited. It is anticipated that the final report, consistent with what is presented here and with any guidance from the Board, will be submitted to the DHB for review and approval during the August 2011 full DHB meeting.

June DHB meeting discussion emphasized several overarching themes that must be reflected in the final report. Specifically:

- 1) DoD must continue to assess, recognize and decrease the very real stigma associated with psychological health conditions.
- 2) DoD must continue to recognize the generally decreased access to military medical and mental health expertise, policy and best practices in the Guard and Reserve Component.
- 3) The DoD and VA must continue to improve communication and systems integration to ensure that the prevalence of psychological conditions and the treatment of military members is better described and optimized, particularly for long periods following deployments and conclusion of active service.

The above recommendations were unanimously approved.

FOR THE DEFENSE HEALTH BOARD:



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